



Fall 2013 Online Testing



MIST™

(Measurement Incorporated Secure Testing)

Technical Guide

Overview

MIST

The Measurement Incorporated Secure Testing system (MIST™) is a secure test delivery system. It has two interfaces: one for students and one for the test administrator(s). It uses a small client program and an active internet connection to the Measurement Incorporated server to securely deliver test content to students. The MIST application is a Flash-based application which locks down the desktop in a kiosk mode.

MIST Technical Guide

This document contains:

- A checklist of tasks for preparing testing computers and the school network for online testing using MIST
- Instructions for downloading MIST
- MIST Technical Specifications

The checklist and the information regarding technical specifications in this document are very important to having a successful experience with MIST. The two most important things to do to ensure a successful test administration are:

- 1. Maximize the bandwidth available to testers**
- 2. Configure all needed permissions to allow MIST.exe traffic to and from the MIST servers**

Training students and test administrators on their respective interfaces is also helpful. Students train using the MIST Student Practice Website. Test Administrators train using the Test Administrator Training Test, via the MIST executable. The MIST Student Practice Website uses a web-deployed version of the application and does not require a login, simplifying its availability to students. The Test Administrator Training Test is password protected to allow proctors to practice all phases of the test administration. The Test Administrator Training Test uses both the desktop-based executable and the live proctor website to deliver a simulated testing situation for training purposes.

NOTE: The *Fall 2013 MEAP Online User Guide to MIST* contains checklists that outline steps technical support and test administrators can follow when preparing to use the MIST system.

All staff involved with testing should familiarize themselves with the following documents:

- *Fall 2013 MEAP Online Test Administration Manual*
- *Fall 2013 MEAP Online User Guide To MIST*
- *MIST Frequently Asked Questions (FAQ)*

Checklist to Prepare for Online Testing

To prepare computers and the network for online testing using MIST, **complete the tasks on the checklist below:**

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- 1.** Verify that **testing computers and the network** meet minimum technical specifications for running MIST. These requirements are listed on **page 6** of this document.

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- 2. Configure** network firewalls, proxy servers, content filters, parental controls, malware finders, Internet Explorer® student user profile, and antivirus software to whitelist

- mist.exe
- <https://mi.misttest.com>

and open ports 80 and 443 to MIST traffic. More detailed information on performing this task can be found on **page 5** of this document.

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- 3.** Maximize the bandwidth available to testers

Plan for school personnel and students to avoid using bandwidth-intensive applications and websites during testing. If possible, allocate bandwidth priority prior to testing devices using a tool such as a packet shaper.

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- 4.** Minimize interference with testing:

- Turn off any **power saver options** on testing computers.
- Plug in laptops during testing.
- Schedule automatic updates to occur outside of testing hours.

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- 5. Download** the *mist.exe* application** and place it on each testing computer's hard drive in a location that is accessible to users with student-level permissions. We suggest making the icon visible on the student's desktop. MIST can be downloaded once and then deployed across the network using any available network management tools. It can also be copied into the correct destination folder on each hard drive from a flash drive or other portable data storage device.



** NOTE: If you used MIST last year, delete the old version and download the new version.

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- 6.** Verify that **each** machine's settings allows a student-level user to open the application *mist.exe*. Details of this task appear on **page 3** of this document under the heading *To Verify that Testing Computer is Compatible with MIST*.

Download MIST

To download the MIST application:

1. Open a browser.
2. Navigate to <https://mi.misttest.com>
3. Login with the credentials below.

Username: admin2013

Password: admin2013

4. Click on the Downloads link (to the left of the screen) to go to the Downloads area of the test administrator website.
5. Click on the MIST download button that corresponds with your operating system. Your download should begin via your default browser.

NOTE: If you have a previous version installed, it must be replaced with the latest version.

If your download does not start automatically, please call the MEAP Call Center at 877-560-8378, option 2 for assistance.

For **Windows**, a stand-alone application (MIST.EXE) will download.

For **Macintosh**, a compressed file (MIST.zip) will download and automatically expand to an application file (MIST.app).

For **Linux**, a package (MIST.deb) will download that must be installed by a system administrator.

MIST can be downloaded once and then deployed across the network using any available network management tools. It can also be copied into the correct destination folder on each hard drive from a flash drive or other portable data storage device.

To Verify that a Testing Computer is Compatible with MIST

1. Log into the computer's operating system with student-level credentials.
2. Double-click on the MIST icon on the testing computer desktop.
3. If you see the login screen below, the settings affecting the testing computer at that time are allowing *mist.exe* to contact the MIST server.



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4. **Complete the Fall 2013 MEAP Online System Check for MIST.**

Please complete the Fall 2013 MEAP Online System Check for MIST in each unique testing location as well as on each unique hardware/software configuration in your testing computer group. Follow steps 1 through 9 below.

- 1) Log into the operating system with a student-level user profile.
- 2) Verify that you can see the MIST icon on the student-level user's desktop.
- 3) Double-click the icon to start MIST.
- 4) Log into the executable with the credentials below and click LOGIN.

Username: admin2013

Password: admin2013

The screen will now show the student roster of imaginary students.

- 5) Click on a student name to select it from the list of imaginary students. Click the NEXT button (lower right).
The screen will now show the list of tests for which the student is enrolled.
- 6) Click on a test name (in this case the *Fall 2013 MEAP Online System Check for MIST*) to select it from the list of tests. You must select a test even if there is only one test. Click the NEXT button (lower right). You will now see the CONFIRMATION Screen.
- 7) Click CONFIRM to create the Tester Station. You will now see the Welcome screen.
- 8) Click START TEST in the lower right.
- 9) Click through the screens of the test. You might try leaving some questions unanswered to see the warning message to students who do not answer all of the questions.

If you have trouble with your download or for any questions or concerns about preparing for online testing, please contact the MEAP Call Center at 877-560-8378, option 2 for assistance. We are here to help!

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Network Capacity

Your experience will be best if you are able to provide **at least 50kb/s** per student during testing. You can use the worksheet below to estimate the amount of bandwidth per student your network can accommodate. Please read the **NOTE** below the worksheet.

1)	Enter the total bandwidth of your network in kb/s. If you share your bandwidth, use the portion that is allocated to your school as your total bandwidth when making your estimations. Use the slower of the upload or download speed to make your estimate.	kb/s
2)	Enter the total number of students who will be testing concurrently (≤ number of available computers).	
3)	Divide line 1 by line 2 and enter the result here. Your answer should be 50kb/s or greater. If it is not, reduce the number of simultaneous testers.	kb/s

NOTE: It is possible to maximize the tester benefit of your school's network capacity by taking steps to limit competition for bandwidth by non-testers. Students and teachers should be asked to limit bandwidth-intensive tasks such as streaming video from the internet or downloading files.

Network Permissions Configuration Information

Category	Specification	Description
Content Filters, Parental Controls	Check all content filters and parental controls and whitelist the URL https://mi.misttest.com and the executable <i>mist.exe</i>	For Macintosh, please turn the built-in OS parental controls off. For Windows, the student-level Internet Explorer user options should have Content Advisor set to accept https://mi.misttest.com as an approved site. Any other content filters and parental controls on your system should be configured to allow all traffic to our URL and all activity by our executable.
Firewalls, antivirus, anti-malware	Port 80 and 443 must be open. Whitelist the URL and exe.	Port 80 and 443 are used to establish a connection, and are used during the test. Web services are used for communication between the client and server during testing and proctoring.
Proxy bypass	https://mi.misttest.com <i>mist.exe</i> Port 443	This information may be required to bypass a proxy server. The program asks for the URL address in the format specified.

MIST Technical Specifications

Minimum System Requirements

Category	WINDOWS	MACINTOSH	LINUX
Hardware	Desktop or laptop preferred. Some net books and thin clients are compatible (see directions on page 3 for testing yours.) Tablets, such as iPad®, Chromebook®, Windows 8 tablets, and Android® tablets not supported.		
Processor	Pentium® II 450 MHz PC or faster	PowerPC® G3 500MHz or faster Any Intel x86-based Macintosh	Pentium® II 450 MHz PC or faster
RAM	256 MB	256 MB	256 MB
Operating Systems	Windows XP, Vista, and 7, 8	Mac OS X v10.4 or later	Ubuntu 9.04 or later (kernel 2.6.28 or later)
Internet Browsers*	Microsoft Internet Explorer 8.0 or later Firefox 8.0 or later Chrome 16.0 or later Safari 4.0 or later	Firefox 8.0 or later Chrome 16.0 or later Safari 4.0 or later	Firefox 8.0 or later Chrome 16.0 or later
Resolution	800 x 600 pixels, 16-bit color	800 x 600 pixels, 16-bit color	800 x 600 pixels, 16-bit color
Additional Hardware Requirements	Mouse Keyboard	Mouse Keyboard	Mouse Keyboard
Additional Software**	QuickTime Adobe Reader	QuickTime Adobe Reader	QuickTime Adobe Reader

* A browser is not required to take a test. A browser is required to download the application, to use the practice tests, and to use the MIST Proctor Website.

** QUICKTIME is NOT required to conduct testing. QuickTime is ONLY required to watch the MIST Training Video. Adobe Reader is not required to conduct testing. Adobe Reader is used to read the MIST documentation.

Accommodations

Zoom Levels (universal accommodation)

The zoom tool is provided on all screens. The zoom tool is not a substitute for a large-print test. Levels of magnification are 0.65x, 0.8x, 1.0x, 1.25x, 1.6x, and 2.0x.

Special Keyboards

Most special keyboards (e.g., Intellikeys™) are compatible with the MIST application and should work properly on machines that meet the minimum OS requirements in the MIST Technical Specifications. Special keyboards can be tested using the steps on page 3 of this document.

Touch Screen Monitors

Most touch screen monitors (e.g., Hyvision MV155 Touch LCD) that meet the minimum resolution requirements in the MIST Technical Specifications are compatible with the MIST application, and should work properly on machines that meet the minimum OS requirements. Touch screen monitors can be tested using the steps on page 3 of this document.

Further Assistance:

**If you have any questions or if we can provide any additional assistance,
please contact the MEAP Call Center
at 1-877-560-8378, option 2.**